

AMENDMENTS TO THE CLAIMS:

Amend the claims as follows:

1. (Currently Amended) A biologically active complex comprising alpha-lactalbumin and a cofactor which stabilises the complex in a biologically active form, wherein the alpha-lactalbumin is selected from the group consisting of:

(i) an alpha-lactalbumin identified by SEQ ID NO: 1 or SEQ ID NO: 2,

(ii) an alpha-lactalbumin variant which has at least 95 % identity to human alpha-lactalbumin as defined by SEQ ID NO: 1 or at least 95 % identity to bovine alpha-lactalbumin as defined by SEQ ID NO: 2;

~~(iii) an alpha-lactalbumin fragment comprising amino acid 34-86 of human α -lactalbumin defined by SEQ ID NO 1 and~~

~~(iv) an alpha-lactalbumin fragment of an alpha-lactalbumin as identified by SEQ ID NO 1 or SEQ ID NO 2 comprising at least 100 amino acids in length,~~

wherein the cofactor is an unsaturated C16-C18 fatty acid with at least one double bond in the cis configuration ~~which has a configuration similar to C18:1:9 or C18:1:11~~ with the proviso that the cofactor is not C18:1:9 cis (oleic acid).

2. (Currently Amended) A complex according to claim 1 wherein the cofactor is an unsaturated C16-C18 fatty acid with 1 to 3 double bonds in the cis configuration with the proviso that the cofactor is not C18:19 cis (oleic acid) ~~has a stereo-specificity similar to cis C18:1:9 and cis C18:1:11 fatty acid.~~

3. (Previously Presented) A complex according to claim 1 wherein the cofactor is cis C18:1:11 fatty acid.

4. (Currently Amended) A complex according to claim 1 which comprises
[[~~(ii)~~]] an alpha-lactalbumin variant which has at least 95 % identity to human
alpha-lactalbumin as defined by SEQ ID NO: 1 or at least 95 % identity to bovine alpha-
lactalbumin as defined by SEQ ID NO: 2;

~~(iii) an alpha lactalbumin fragment comprising amino acid 34-86 of human α -
lactalbumin defined by SEQ ID NO 1 and~~

~~(iv) an alpha lactalbumin fragment of an alpha lactalbumin comprising at least
100 amino acids in length.~~

5. (Currently Amended) A biologically active complex according to claim 1 which
is obtainable by combining

(i) a cis unsaturated C16-C18 fatty acid with at least one double bond in the cis
configuration; and

(ii)

(a) an alpha lactalbumin from which calcium ions have been removed, or

(b) a variant of alpha-lactalbumin from which calcium ions have been removed
or which does not have a functional calcium binding site; ~~or~~

~~(c) a fragment of an alpha lactalbumin comprising at least 100 amino acids in
length from which calcium ions have been removed.~~

6. (Previously Presented) A complex according to claim 1 which includes an
alpha-lactalbumin variant in which the calcium binding site has been modified so that
the affinity for calcium is reduced, or it is no longer functional.

7. (Previously Presented) A complex according to claim 6 wherein the variant has a mutation at a position corresponding to at least one of the K79, D82, D84, D87 or D88 residues of bovine alpha-lactalbumin (SEQ ID NO:2).

8. (Currently Amended) A complex according to claim 7 which includes a D87A variant of alpha-lactalbumin (SEQ ID NO:3) or D87N variant of $[[\alpha-]]$ alpha-lactalbumin (SEQ ID NO:4).

Claim 9. (Canceled)

Claim 10. (Canceled)

11. (Currently Amended) A complex according to claim $[[10]]_1$ wherein the alpha lactalbumin is human $[[\alpha-]]$ alpha-lactalbumin (SEQ ID NO:1).

12. (Currently Amended) A complex according to claim $[[10]]_1$ wherein the alpha lactalbumin variant is mutant bovine $[[\alpha]]$ alpha-lactalbumin which includes an S70R mutation (SEQ ID NO:5).

13. (Previously Presented) A complex according to claim 1 which further comprises calcium ions.

14. (Previously Presented) A pharmaceutical composition comprising a complex according to claim 1 in combination with a pharmaceutically acceptable carrier.

Claim 15. (Canceled)

Claim 16. (Canceled)

Claim 17. (Canceled)

Claim 18. (Canceled)

19. (Currently Amended) A complex according to claim 1 wherein the complex induces apoptosis selectively in tumor cells~~cofactor is an C18:1 cis fatty acid which stabilises the complex in a biologically active form.~~

20. (Currently Amended) A complex according to claim ~~[[2]]~~1, wherein the alpha-lactalbumin is a variant of alpha-lactalbumin and wherein the amino acid substitutions are comprises~~conservative amino acid substitutions.~~

21. (Currently Amended) A complex according to claim ~~[[20]]~~1, wherein the alpha-lactalbumin is a variant of alpha-lactalbumin ~~[[is]]~~ at least 95 % identical to human alpha-lactalbumin (SEQ ID NO:1).

Claim 22. (Canceled)

23. (Currently Amended) A complex according to claim 3, wherein the alpha-lactalbumin is a variant of alpha-lactalbumin and wherein the amino acid substitutions are comprises~~conservative amino acid substitutions.~~

24. (Currently Amended) A complex according to claim ~~[[23]]~~3, wherein the variant of alpha-lactalbumin has at least 95 % identity to human alpha-lactalbumin (SEQ ID NO: 1).

Claim 25. (Canceled)

Claim 26. (Canceled)

27. (Previously Presented) The complex according to claim 1, wherein the cofactor is an unsaturated fatty acid selected from the group of: C18:1:11cis , C18:1:6cis, C18:2:9,12cis, C16:1:9cis, C18:3:6,9,12cis and C18:3:9,12,15cis.

28. (Previously Presented) The complex according to claim 1 wherein the cofactor is selected from the group of: C18:1:11cis , C18:1:6cis, C18:3:6,9,12cis and C18:3:9,12,15cis.

29. (Currently Amended) A biologically active complex comprising alpha-lactalbumin and a cofactor which stabilises the complex in a biologically active form, wherein the cofactor is oleic acid (C18:1:9_cis) and wherein the alpha-lactalbumin is selected from the group consisting of:

- (i) bovine alpha-lactalbumin identified by SEQ ID NO: 2[[.]], and
 - (ii) an alpha-lactalbumin variant which has at least 95 % identity to human alpha-lactalbumin as defined by SEQ ID NO: 1 or at least 95 % identity to bovine alpha-lactalbumin as defined by SEQ ID NO: 2,
 - ~~(iii) an alpha lactalbumin fragment comprising amino acid 34-86 of human α -lactalbumin defined by SEQ ID NO 1 and~~
 - ~~(iv) an alpha lactalbumin fragment of an alpha lactalbumin as identified by SEQ ID NO 1 or SEQ ID NO 2 comprising at least 100 amino acids in length,~~
- wherein the alpha-lactalbumin variant is not [[to]] human alpha-lactalbumin as defined by SEQ ID NO: 1.

30. (Previously Presented) The complex according to claim 29 which includes an alpha-lactalbumin variant in which the calcium binding site has been modified so that the affinity for calcium is reduced, or it is no longer functional.

31. (Currently Amended) The complex according to claim 29 wherein the variant has a mutation at a position corresponding to at least one of the K79, D82, D84, D87 or D88 residues of bovine alpha-lactalbumin as defined by SEQ ID NO₂.

32. (Currently Amended) The complex according to claim 29, which includes a D87A or D87N variant of alpha-lactalbumin as defined by SEQ ID NO₃ and SEQ ID NO₄, respectively.

33. (Currently Amended) The complex according to claim 29, wherein the alpha-lactalbumin variant is mutant bovine α -lactalbumin which includes an S70R mutation as defined by SEQ ID NO₅.

34. (Currently Amended) The complex according to claim 29, wherein the alpha-lactalbumin is

- (i) bovine alpha-lactalbumin as defined by SEQ ID NO₂ or
- (ii) an alpha-lactalbumin variant at least 95 % identical to SEQ ID NO₁ or SEQ ID NO₂.

Claim 35. (Canceled)

36. (New) A complex according to claim 29, wherein the complex induces apoptosis selectively in tumor cells.